

Figure 1

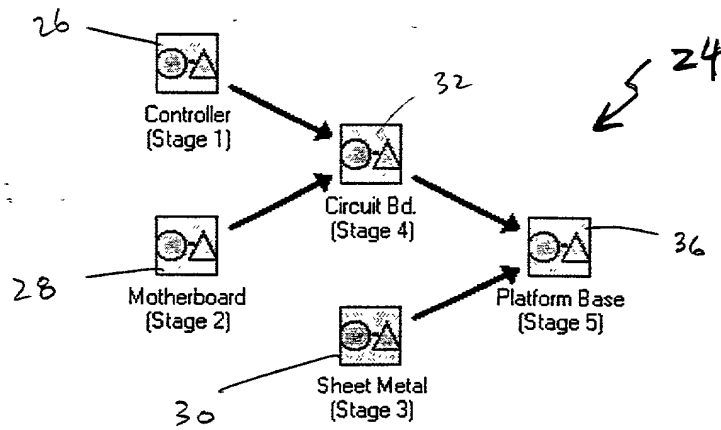


Fig. 2

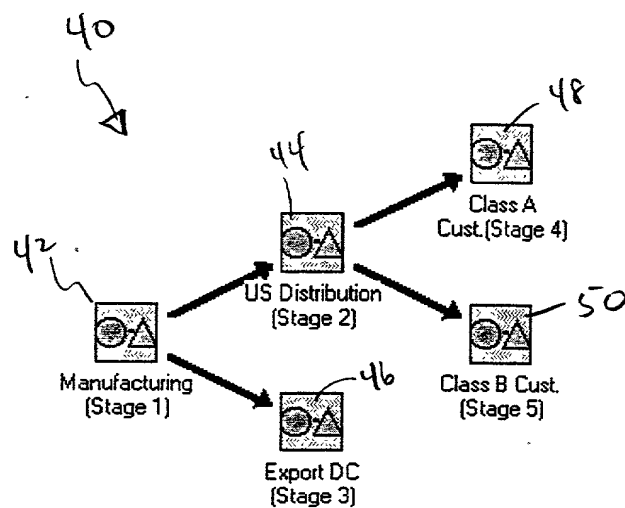


Fig. 3

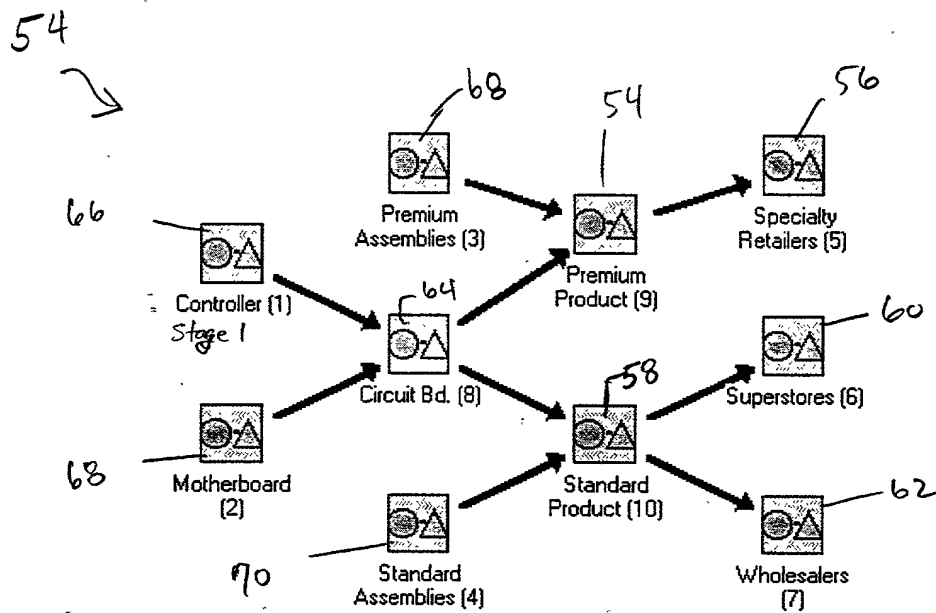


Fig. 4

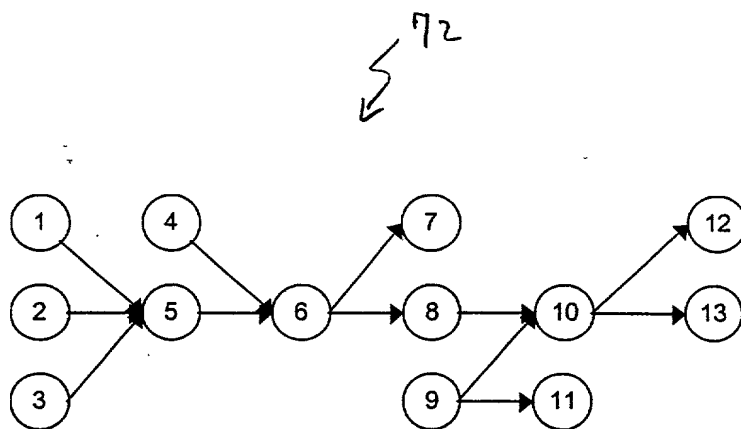


Fig. 5

10500T 4T F 2660

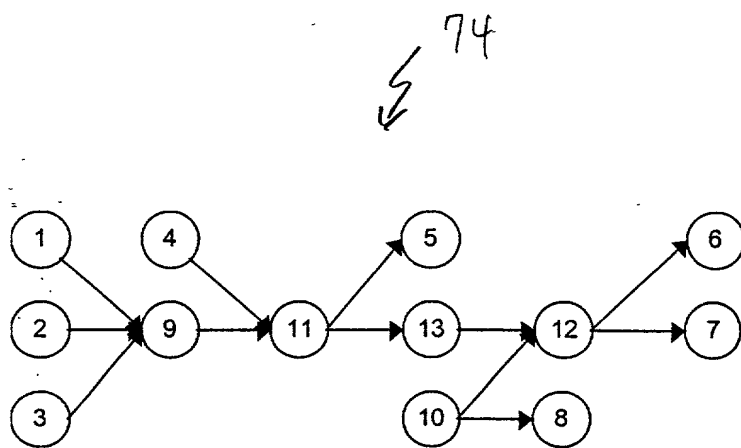


Figure 6

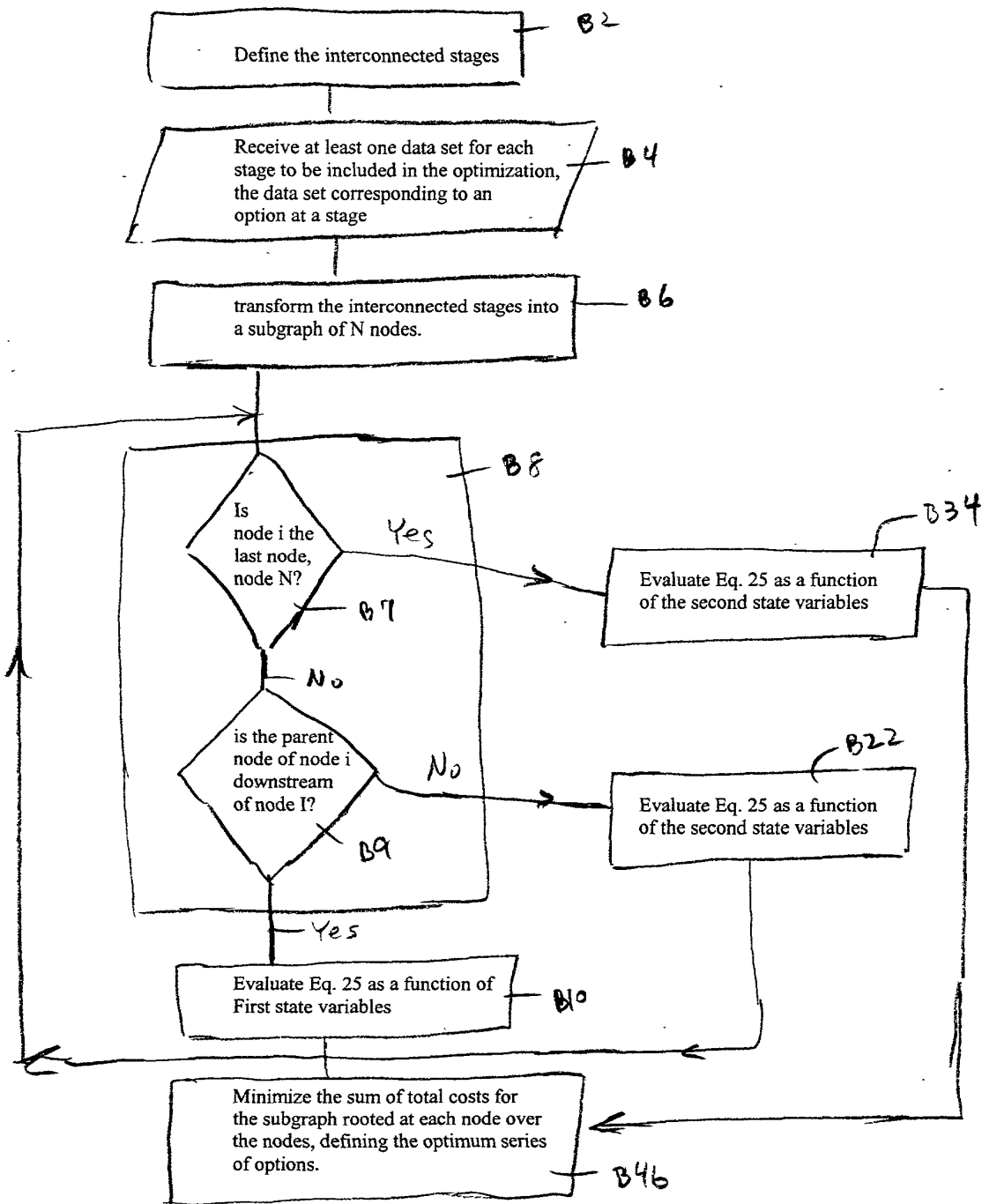


Fig. 7a

B10

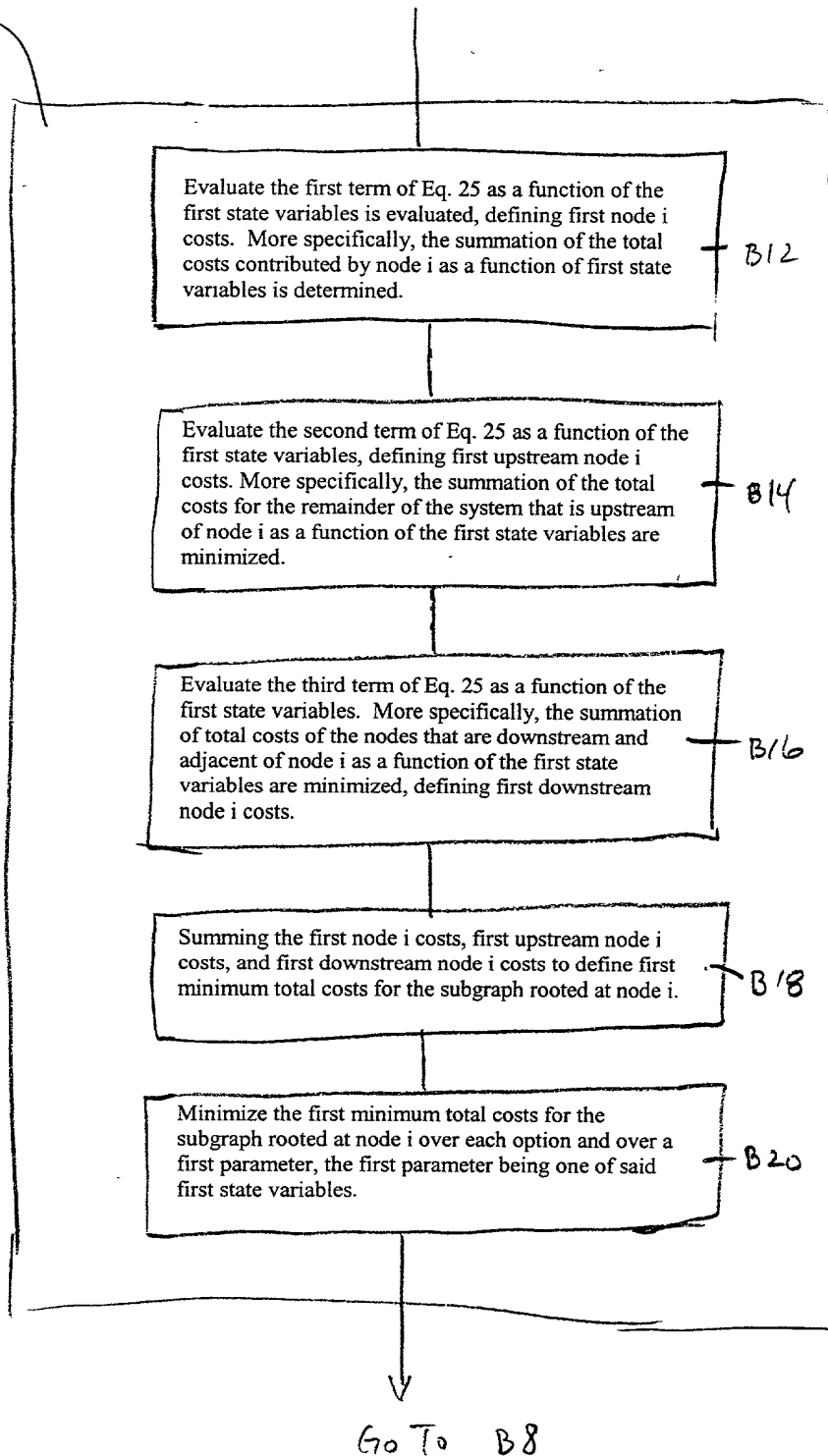


Fig. 7b

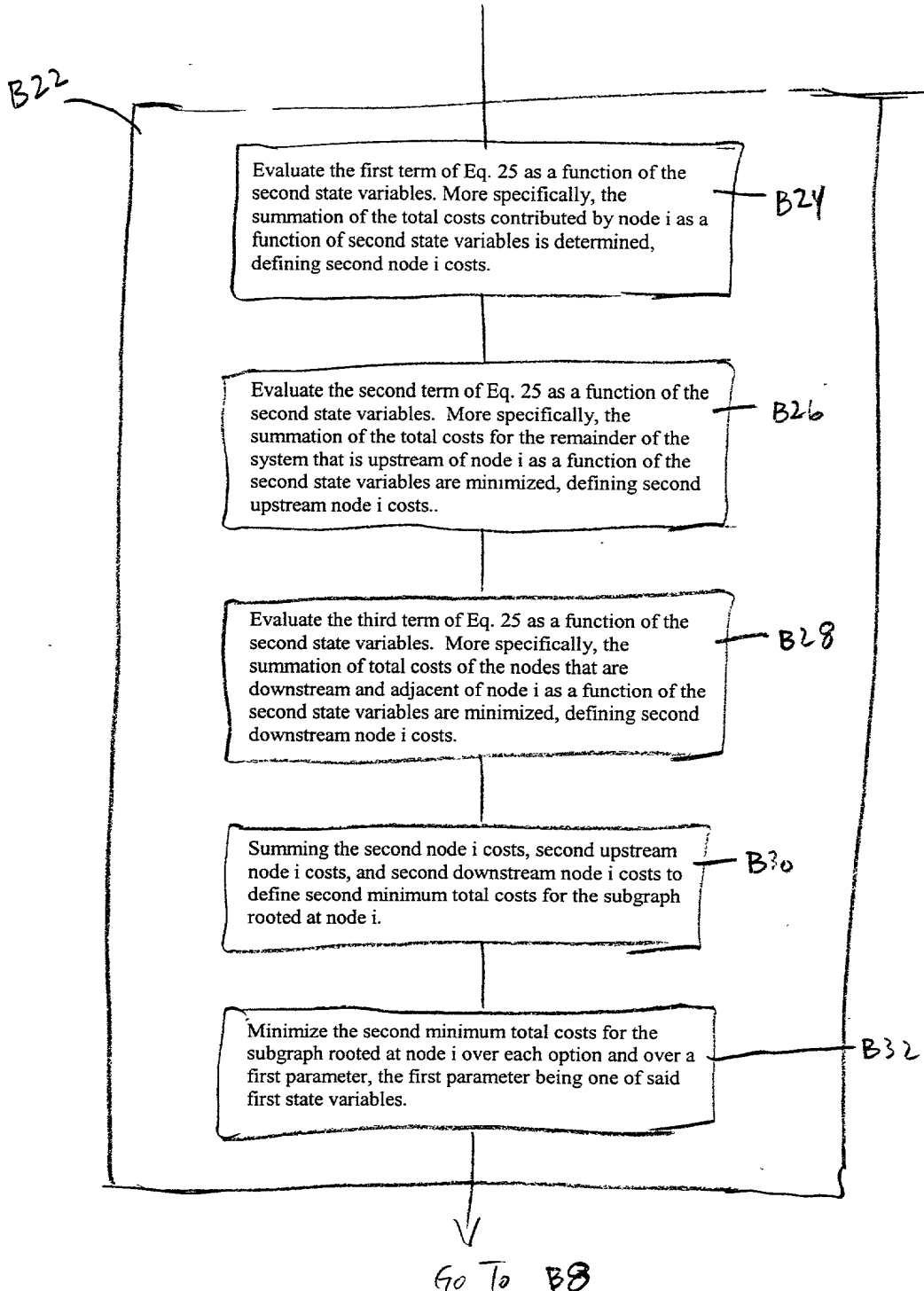


Fig. 7c

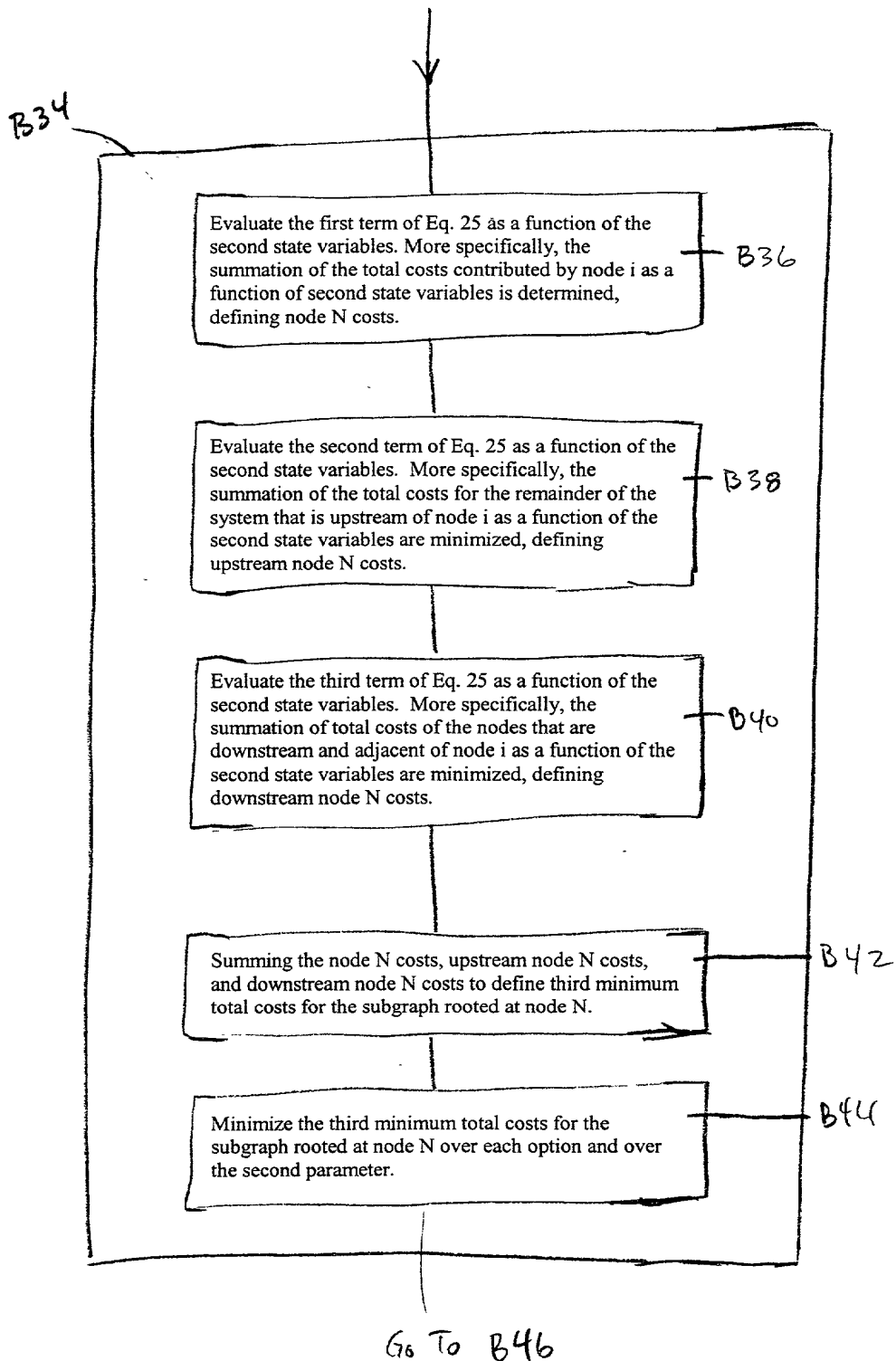


Fig. 7d

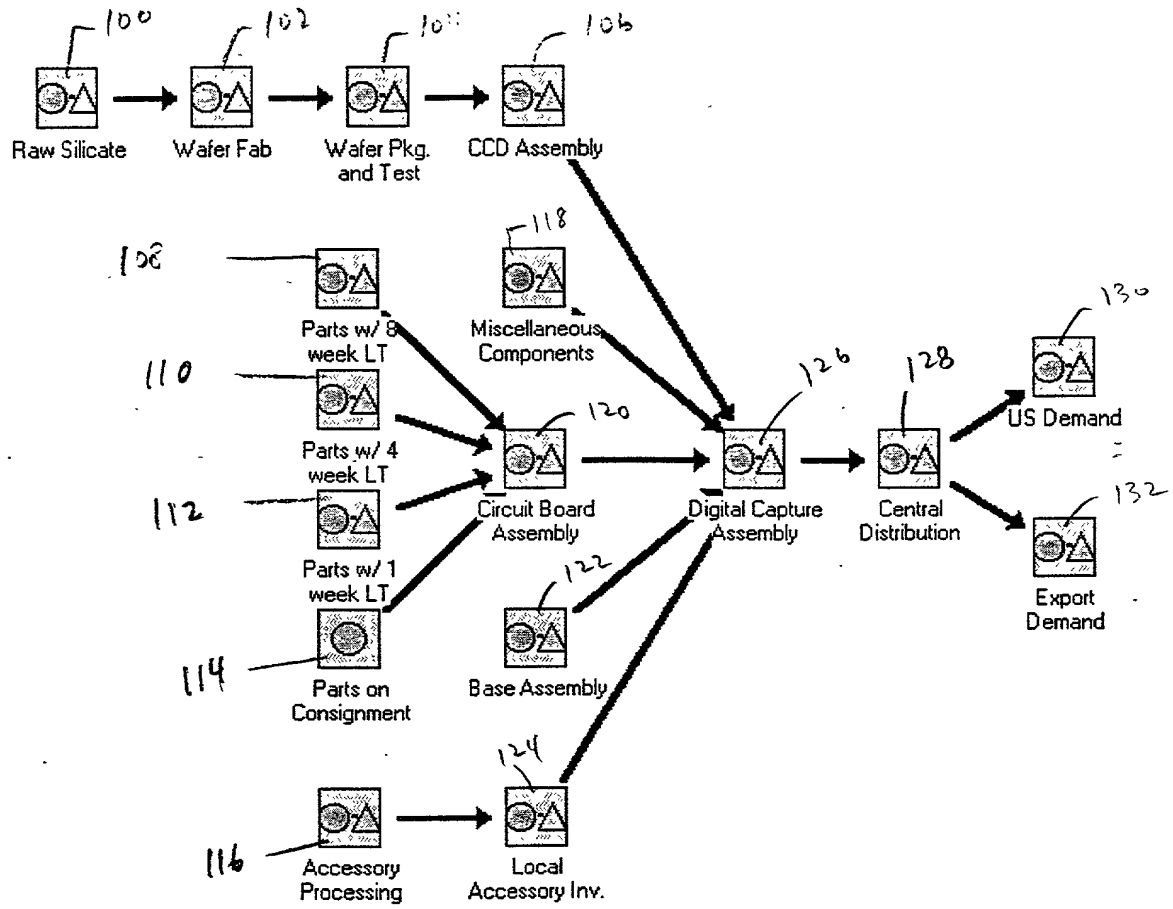


Fig. 8

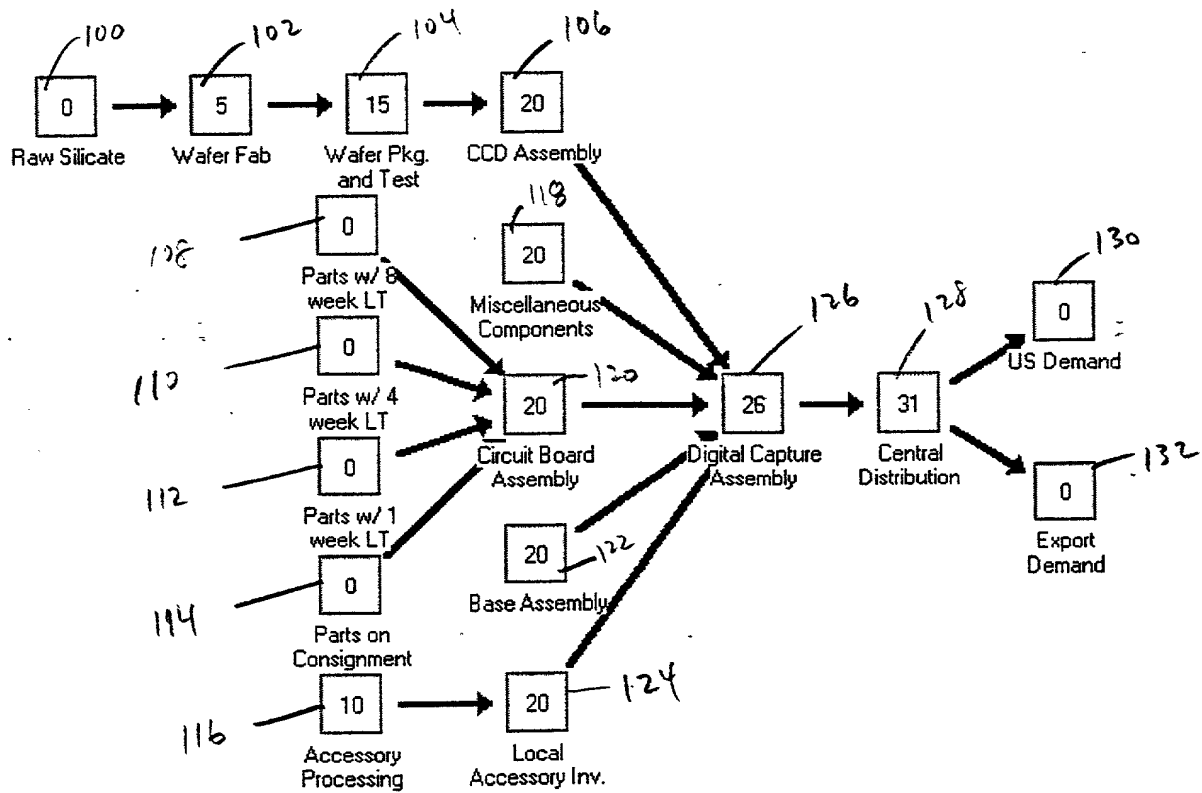


Fig. 9

10500T-4TTF2660

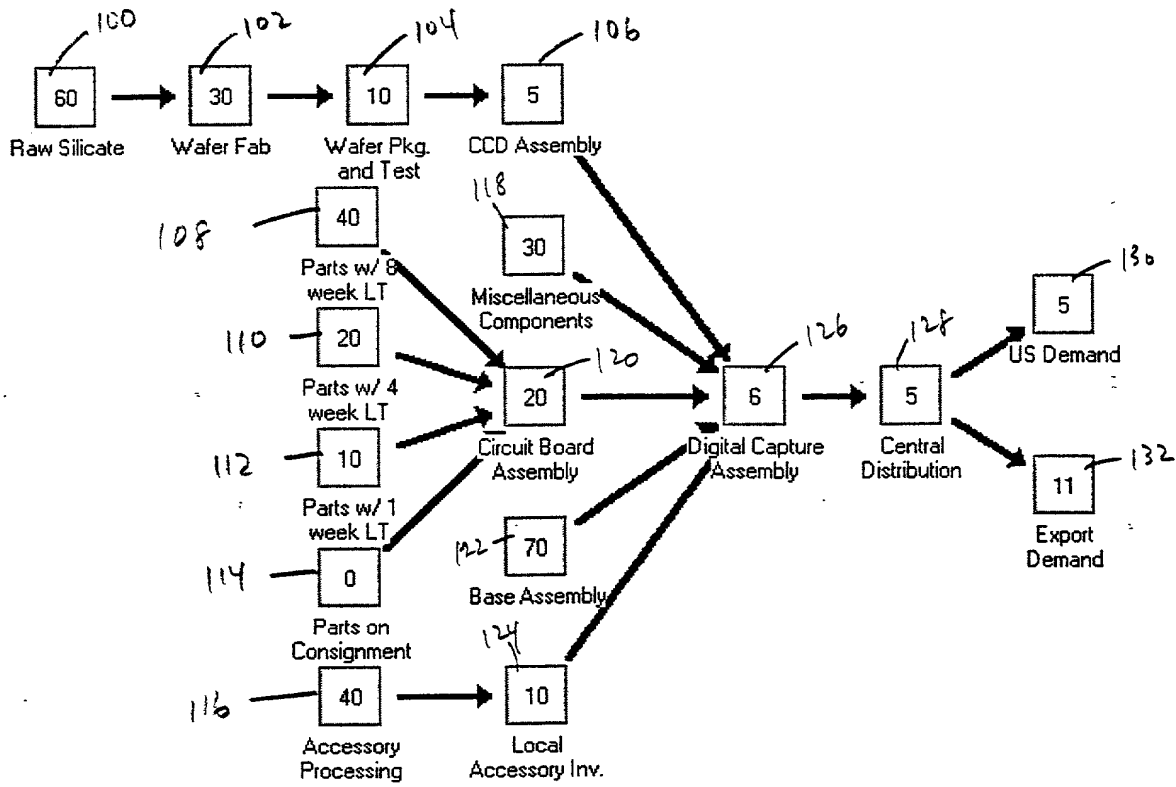


Fig. 10

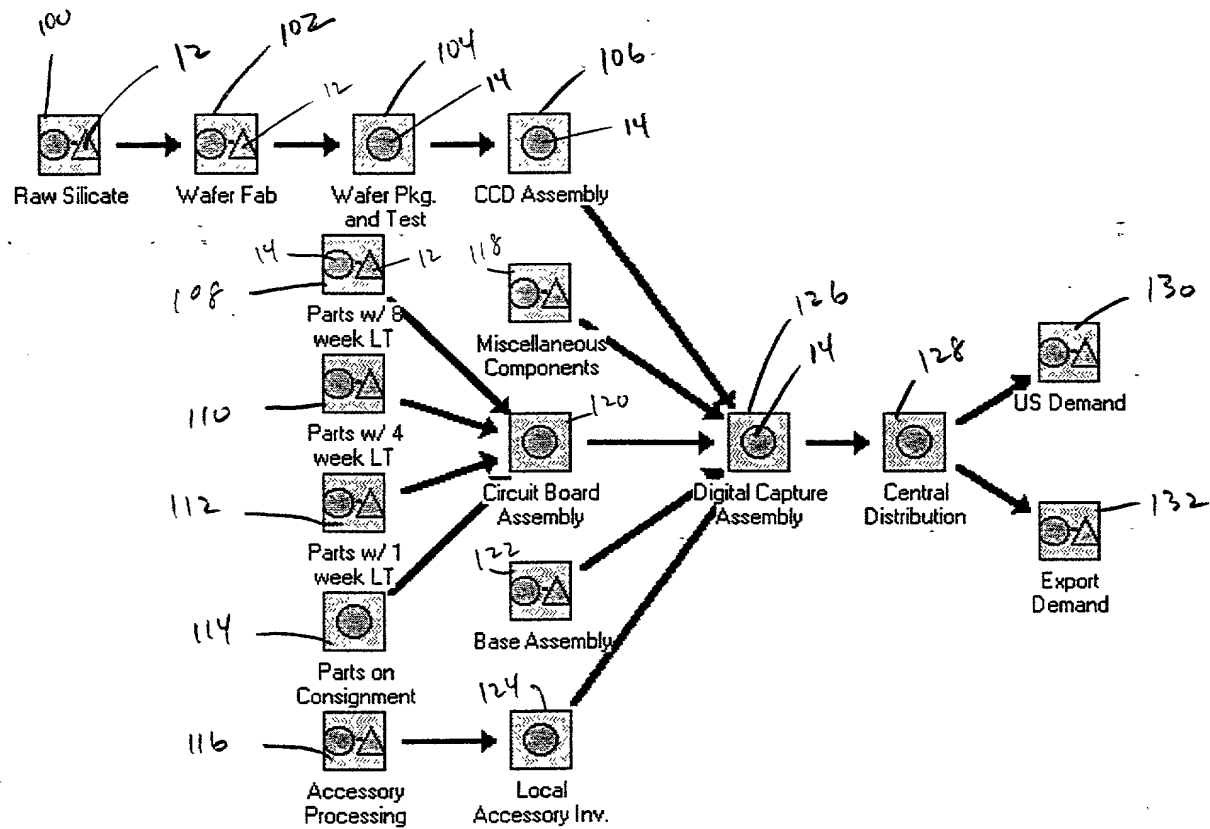


Fig. 11

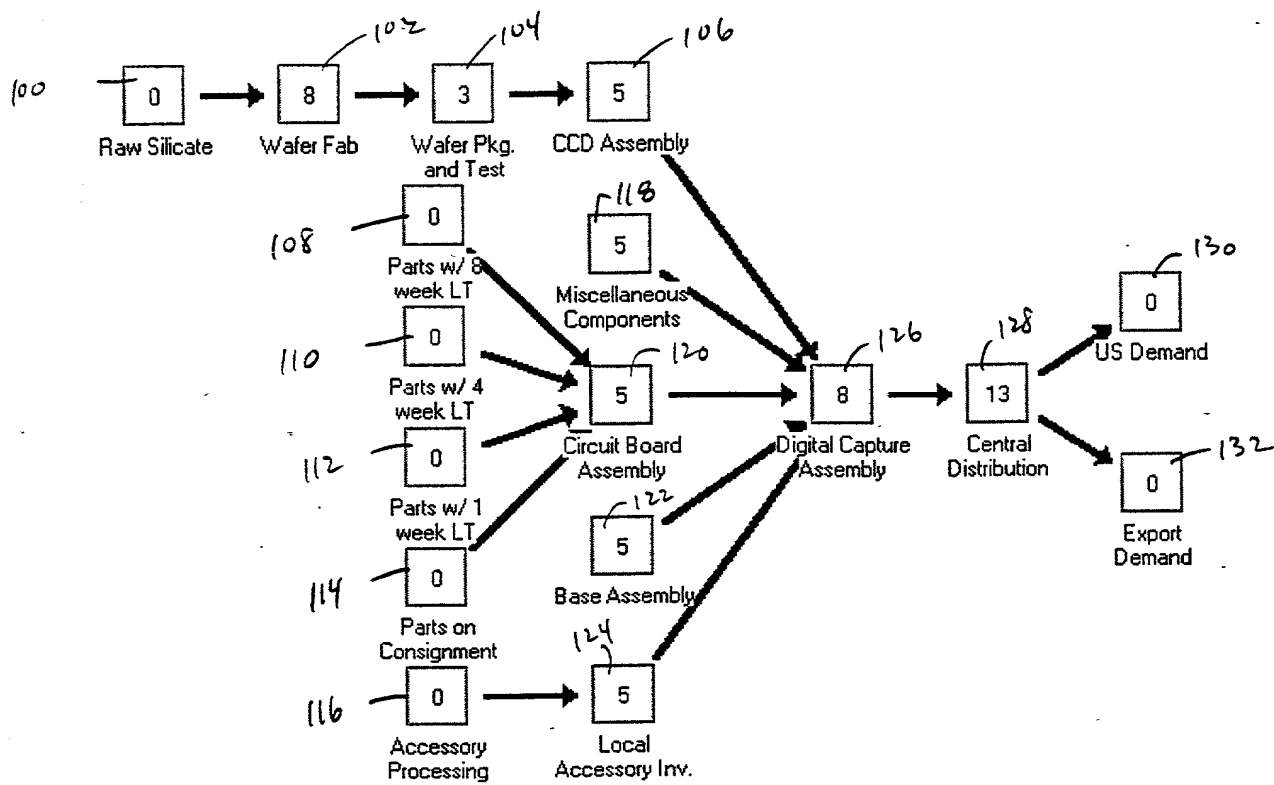


Fig. 12

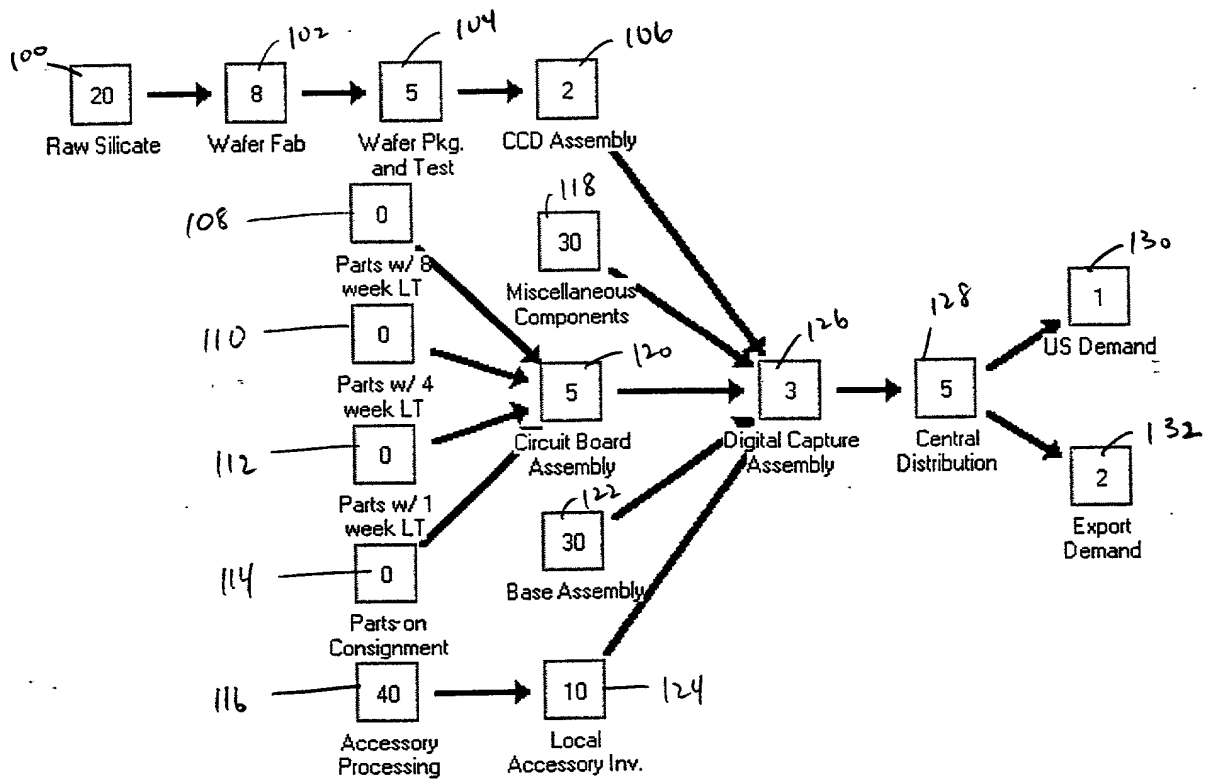


Fig. 13

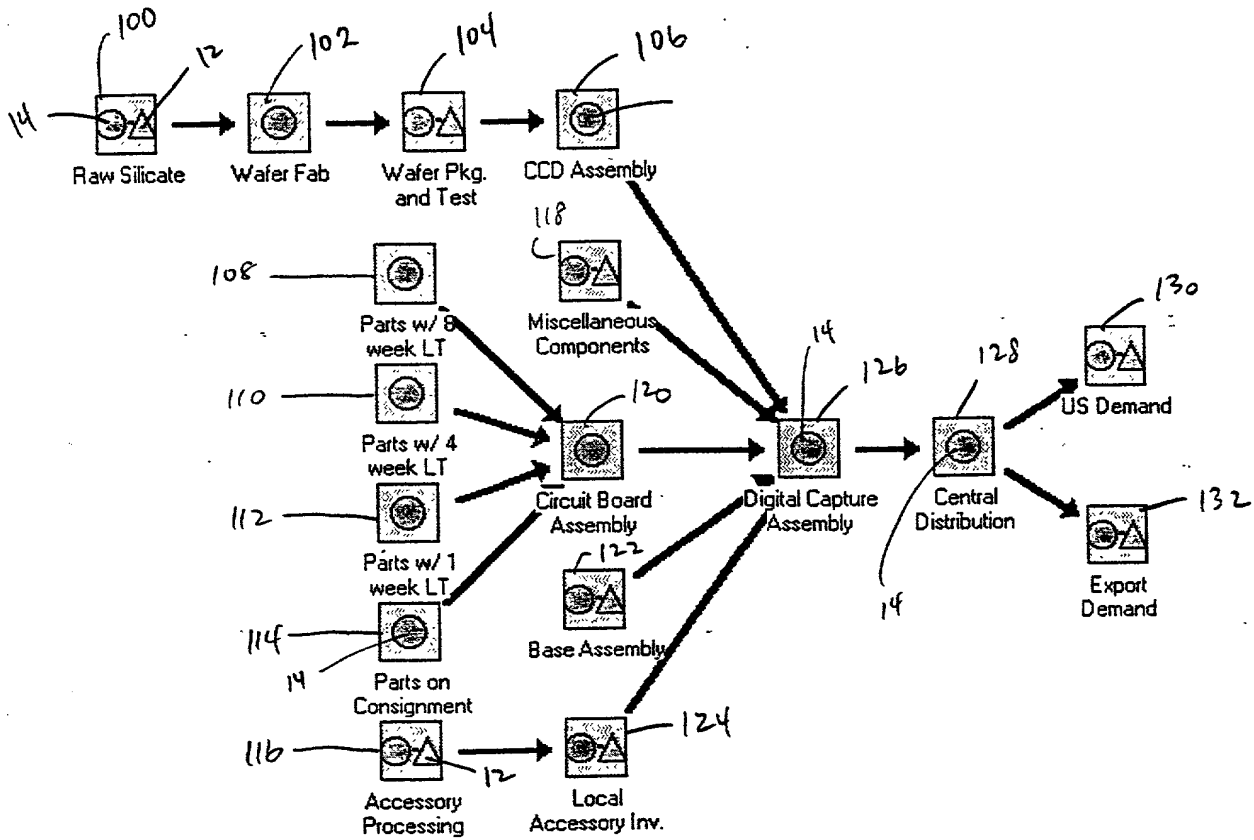


Fig. 14

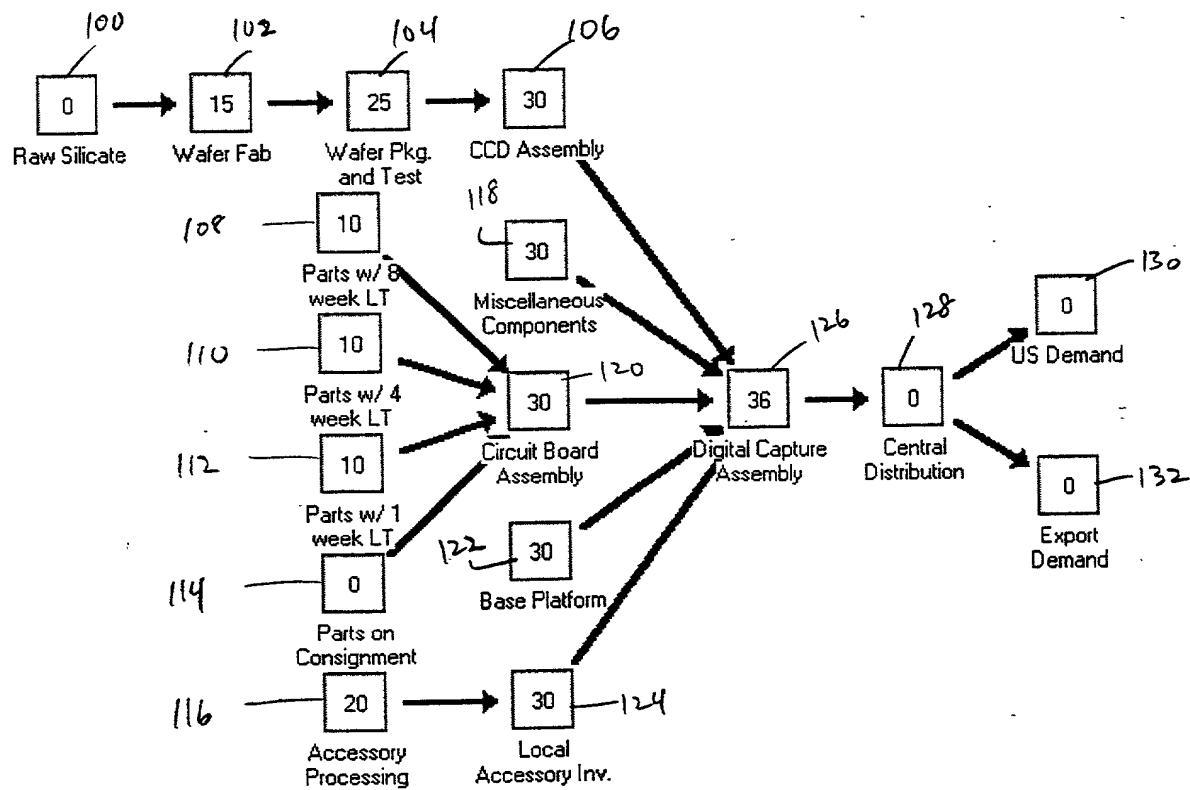


Figure 15

```

graph LR
    100[60 Raw Silicate] --> 102[30 Wafer Fab]
    102 --> 104[10 Wafer Pkg. and Test]
    104 --> 106[5 CCD Assembly]
    106 --> 126[6 Digital Capture Assembly]
    118[30 Miscellaneous Components] --> 126
    110[10 Parts w/ 4 week LT] --> 120[20 Circuit Board Assembly]
    112[10 Parts w/ 1 week LT] --> 120
    114[0 Parts on Consignment] --> 120
    122[30 Base Platform] --> 126
    124[10 Local Accessory Inv.] --> 126
    108[10 Parts w/ 8 week LT] --> 126
    126 --> 128[5 Central Distribution]
    128 --> 136[1 US Demand]
    128 --> 132[2 Export Demand]
  
```

Figure 16

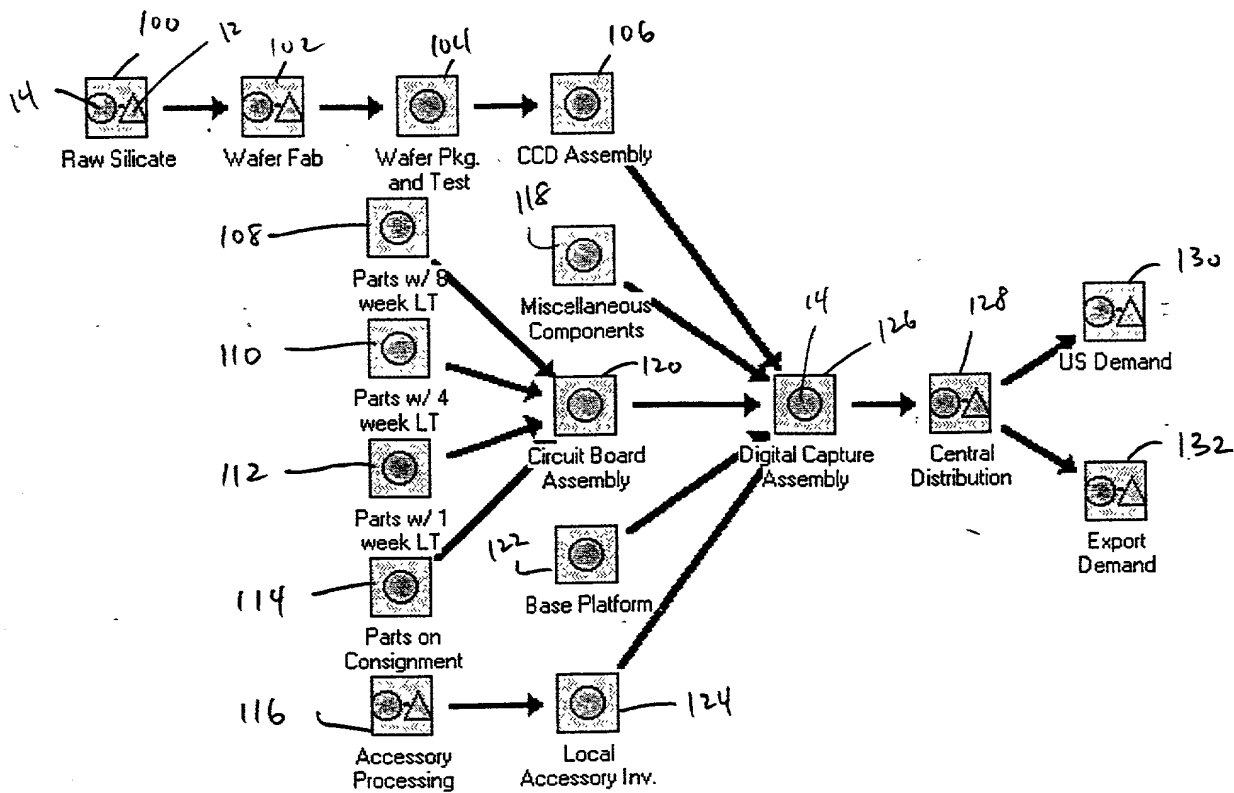


Figure 17

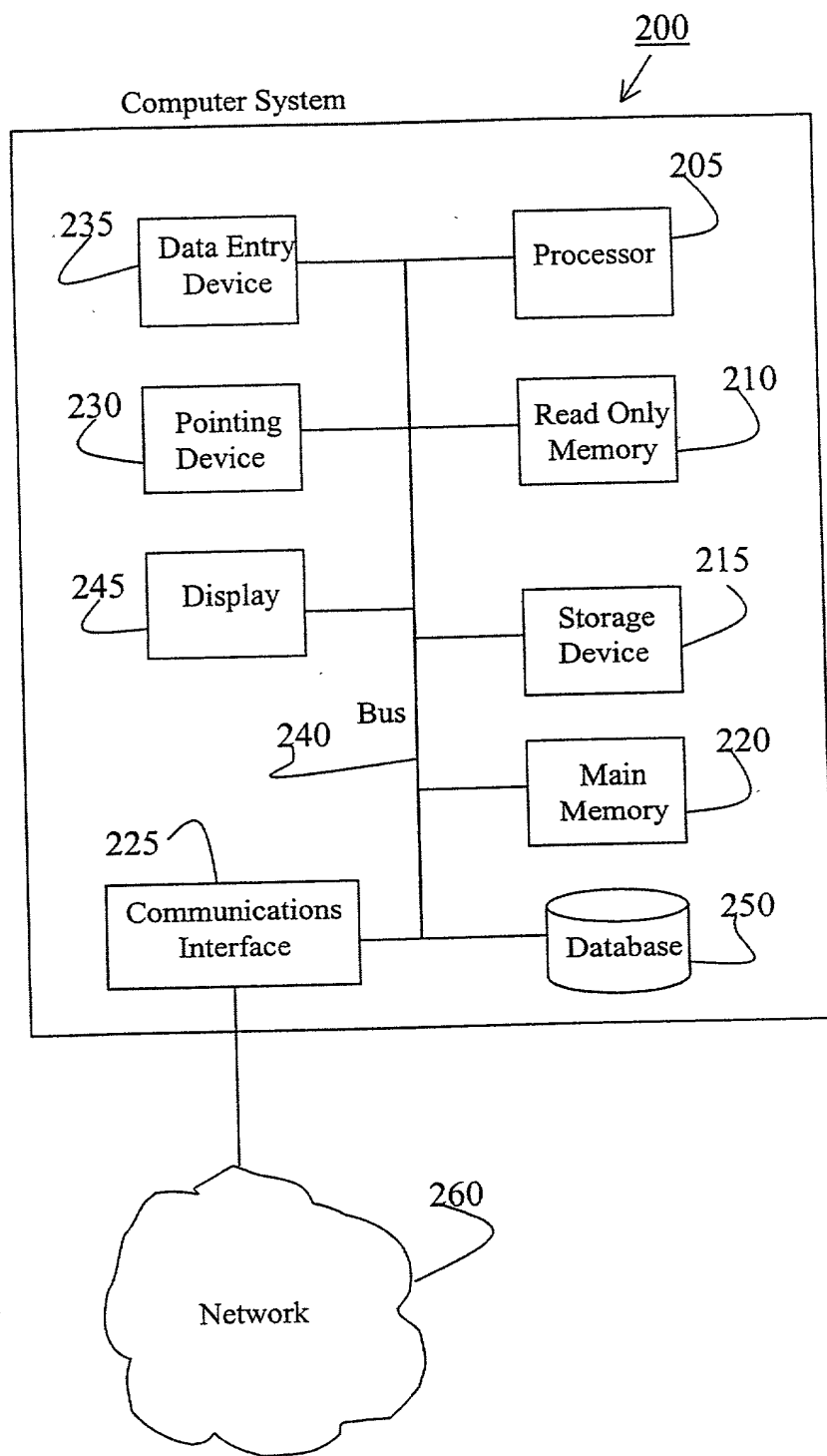


Fig. 18

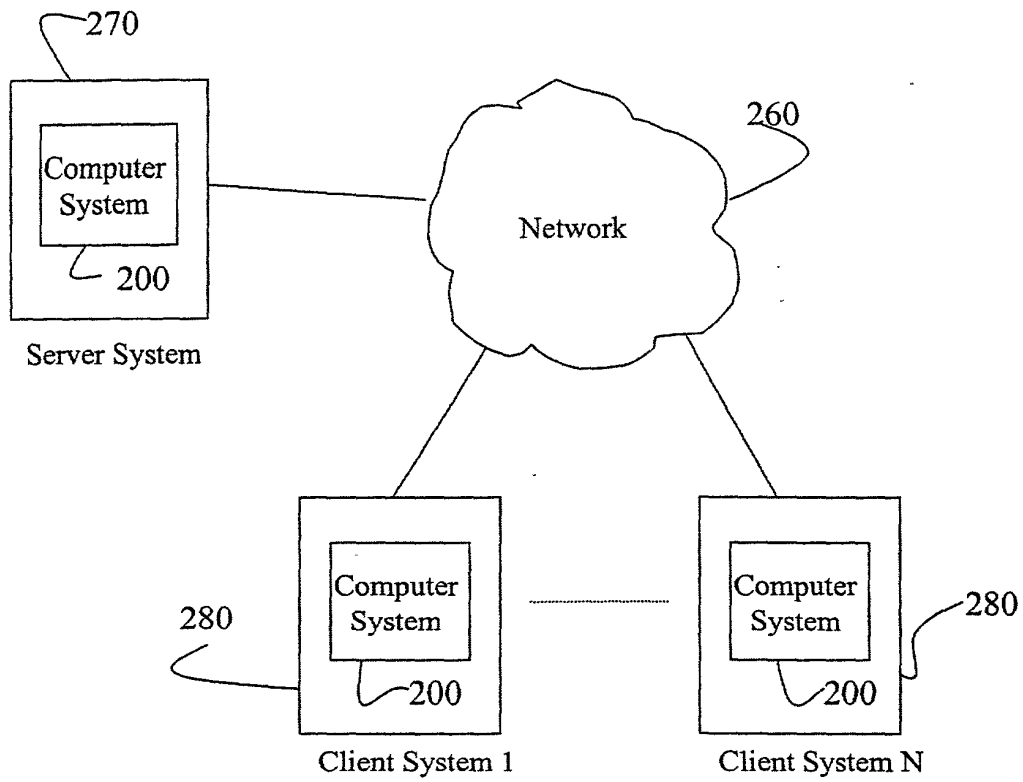


Fig. 19

optiant Eric Sample

optiant

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 7/25/2001 4:59 PM [PowerChain Architect](#)

## VIEW ALL CHAINS

 All chains for Eric Sample  
 You may sort this table by clicking on the column headers. The direction of the arrow indicates ascending or descending order.

Compare	Chain Name ▲	Status	View Chain	Owner	Created	Last Change	Delete Chain
<input type="checkbox"/>	Copy of PowerChain Architect Case Study Version 1	Checked Out Eric Sample	<a href="#">Edit</a>	Eric Sample	June 26, 2001 6:04 PM	July 25, 2001 2:49 PM	<input type="checkbox"/>
<input type="checkbox"/>	New Supply Chain Version 1	Checked Out Eric Sample	<a href="#">Edit</a>	Eric Sample	July 25, 2001 2:49 PM	July 25, 2001 3:36 PM	<input type="checkbox"/>
<input type="checkbox"/>	PowerChain Architect Case Study Version 4	Checked Out Eric Sample	<a href="#">Edit</a>	Murthy Mathiprakasham	June 14, 2001 9:28 AM	June 26, 2001 6:04 PM	<input type="checkbox"/>
<input type="checkbox"/>	Compare						Delete Chain

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Fig. 20

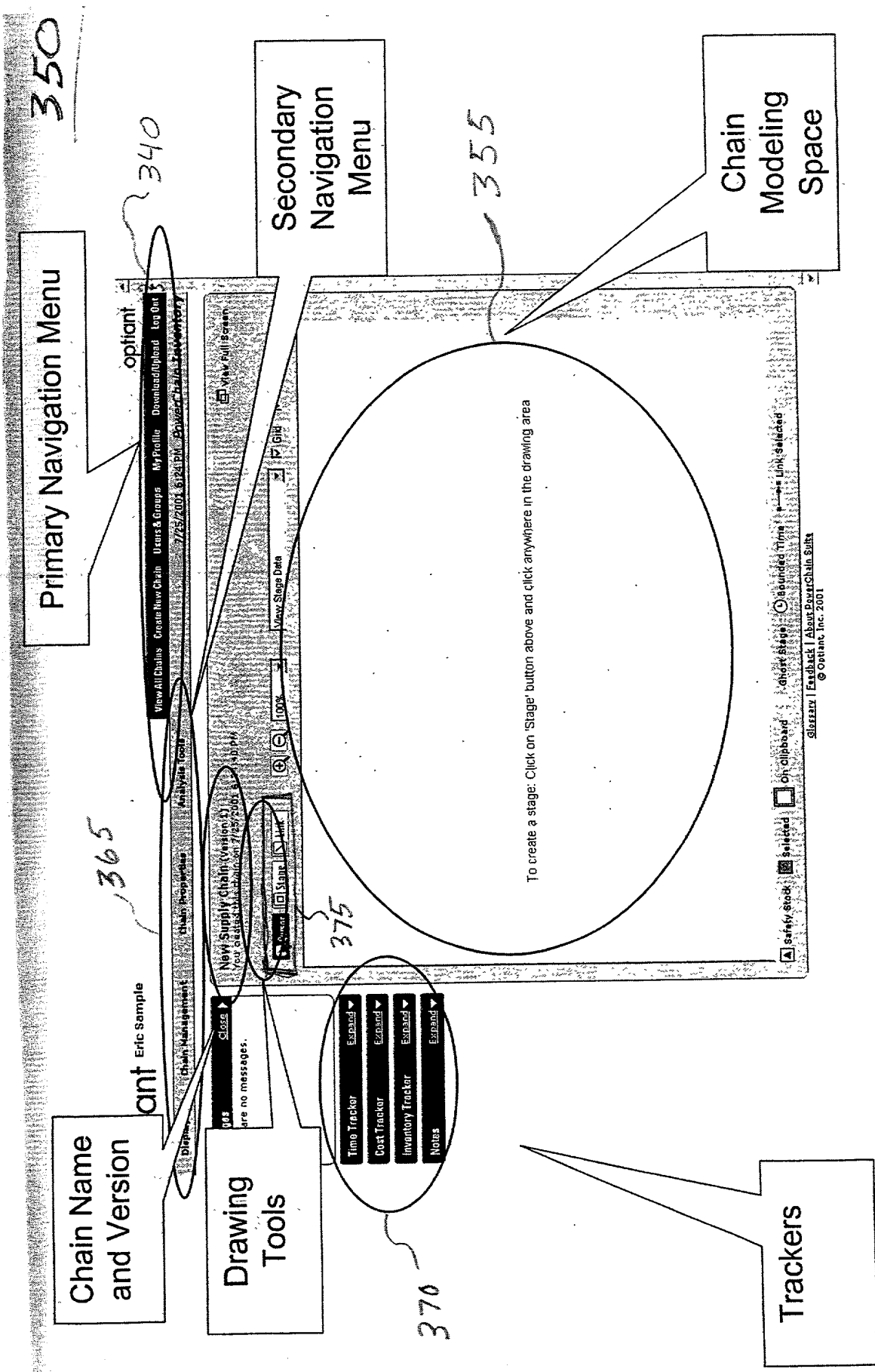
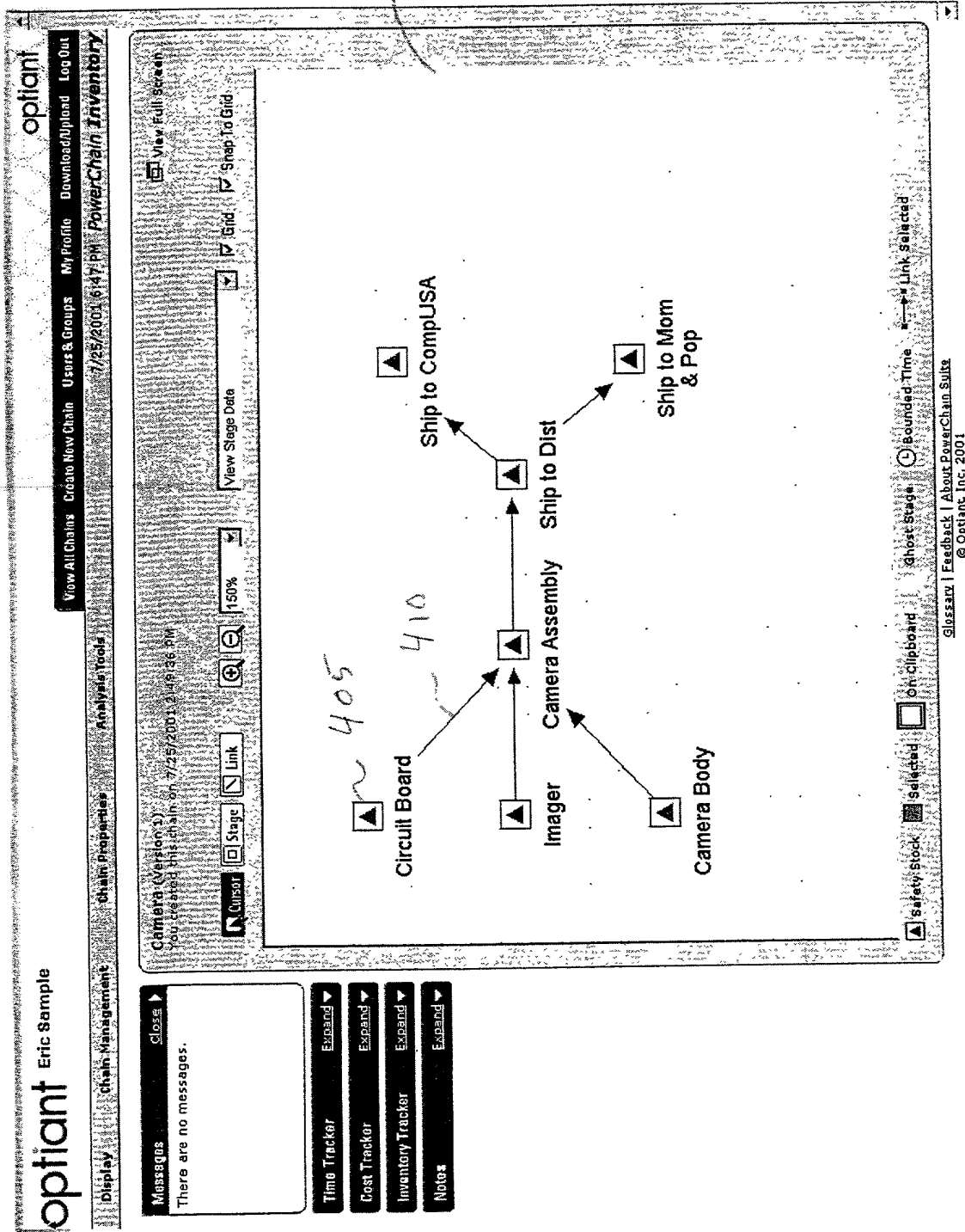
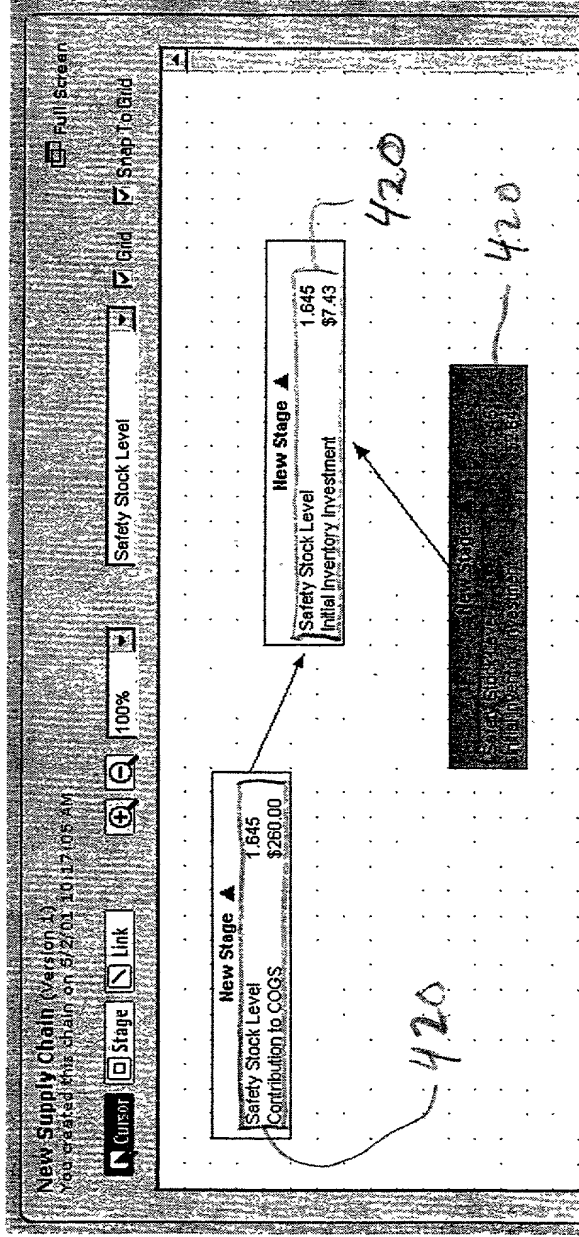


Fig. 21



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Fig. 22



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Fig. 23

1000

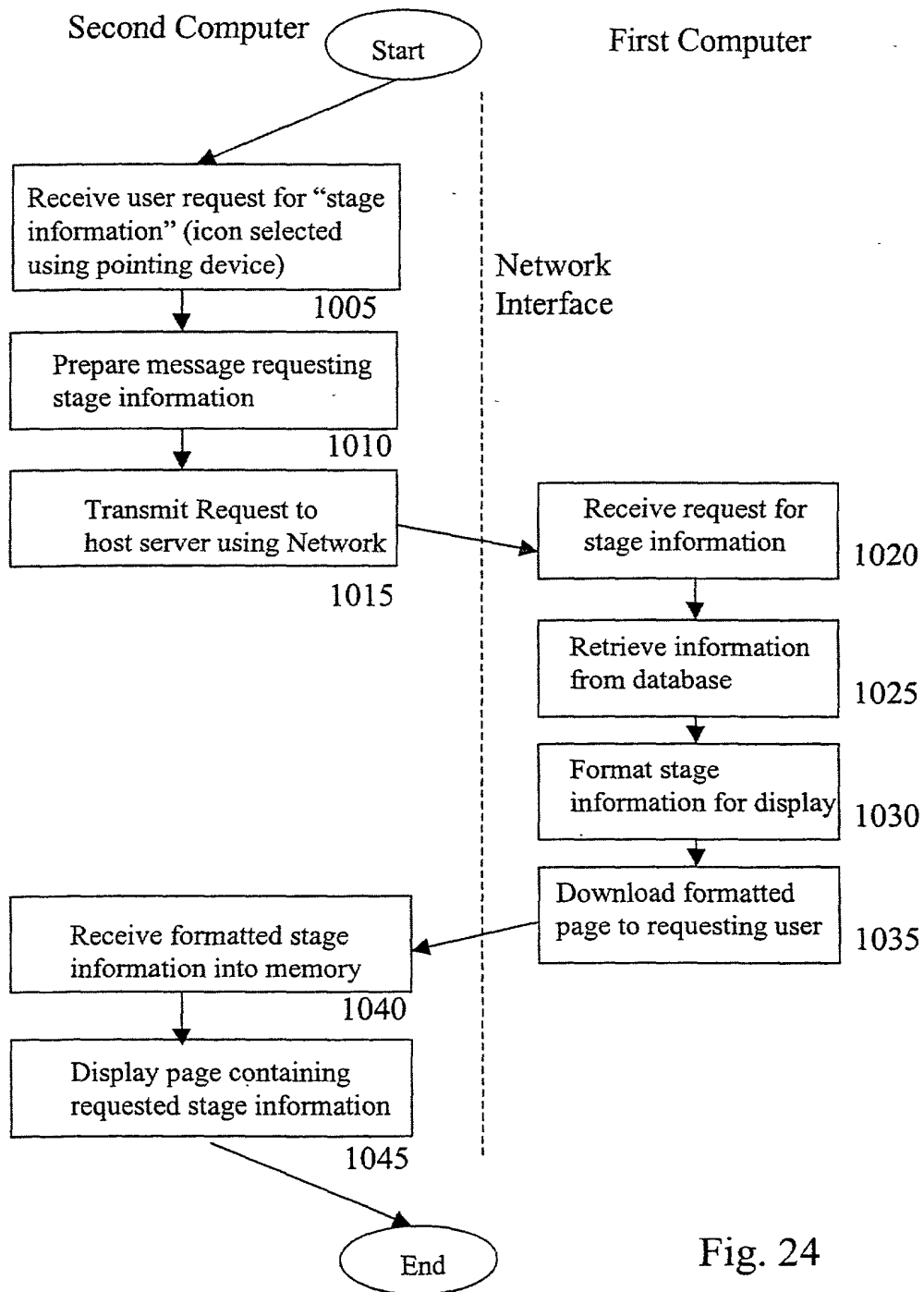


Fig. 24



**optiant** Eric Sample

optiant

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7/25/2001 5:14 PM PowerChain Architect

Chain Management Chain Properties Analysis Tools

New Supply Chain Version 1.0

Messages **Expand**

### STAGE REPORT

Click on a stage name to view the properties of that stage. You may sort this table by clicking on the column headers. A red arrow in the arrow indicates ascending or descending order.

There are 3 stages in this chain.

Stage Name	Option Time	Service Time	Option Cost	Class	Done Stage
<a href="#">New Stage</a>	1	0	\$1.00	None Specified	<input type="checkbox"/>
<a href="#">New Stage</a>	1	0	\$1.00	None Specified	<input type="checkbox"/>
<a href="#">New Stage</a>	1	0	\$1.00	None Specified	<input type="checkbox"/>

Done Stage

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- The Stage Report is accessed by going to Display | Stage Report
- The Link Report is accessed by going to Display | Link Report
- Allows rapid entry of stage information and rapid deletion of stages and links respectively

# Options Summary Tab

PowerChain Architect: New Supply Chain - Microsoft Internet Explorer

Stage Name: Distribution Close Save

Options Summary Options Detail Option Report Stage Properties

Option Name Total Option Time (in days) Total Option Cost Holding Cost Rate Include in optimization? Currently Selected Details

Air Ship	1	\$10	20 %	<input checked="" type="checkbox"/>	<input type="radio"/>	<span>View/Edit</span>
New Option	1	\$5	20 %	<input checked="" type="checkbox"/>	<input type="radio"/>	<span>View/Edit</span>

Add Option

Notes/Description:

Click to add more options	Total lead time of the option	Total cost of the option	Creation and Last Change Information	Whether to consider this option during optimization	Optimization selects the best option
---------------------------	-------------------------------	--------------------------	--------------------------------------	---	--------------------------------------

Fig. 26

650  
✓

## Option Report Tab

PowerChain Architect: New Supply Chain - Microsoft Internet Explorer

Stage Name: Distribution Close Save

Options Summary Options Detail **Option Report** Stage Properties

A Stage Report shows a table of all the inputs and calculations for this stage, depending on which report is chosen. Every option gets calculated as if it were the currently selected option.

Options Included in Stage:

Air Ship  
New Option

Select the report you would like to see:

☐ Time Values  
☐ Inventory Levels  
☐ Cost Values  
☒ Show all Values

655

Create Report

**Select which values you want displayed**

Fig. 27

# Stage Properties Summary Tab

PowerChain Architect: New Supply Chain - Microsoft Internet Explorer

Stage Name: Distribution Close Save

Options Summary	Options Detail	Option Report
<b>Summary</b>	<b>Service</b>	<b>Demand</b>
Cumulative Cost		\$1.00
Safety Stock Cost		\$0.33
Pipeline Stock Cost		\$0.20
Total Stock Cost		\$0.53
Total Inventory Investment		\$2.64
Contribution to COGS		\$260.00
Safety Stock Level (in units)		1.64
Pipeline Stock Level (in units)		1.00
Total Stock Level (in units)		2.64
Longest Path Through Stage (in days)		1
Stage Turnover Time (in days)		3
All calculations are based on the currently selected option.		

Include Stage in Optimization? ☒ Yes ☐ No

Include Stage in Cost Calculations? ☒ Yes ☐ No

Include Stage in Time Calculations? ☒ Yes ☐ No

Stage Class: None Specified View Stage Permissions

Stage Notes/Description:

**Cost Metrics**

**Inventory Metrics**

**Time Metrics**

**Specify whether the stage affects optimization or calculations**

**Classify the stage into an echelon**

# Stage Properties Demand Tab

PowerChain Architect: New Supply Chain - Microsoft Internet Explorer

Stage Name:

Options Summary Options Detail Option Report Stage Properties

Summary Service Demand

Average Demand

Variability

☒ Standard Deviation  100%

☐ Coefficient of Variation

Service Level  %

Power  %

View Demand Matrix in Full Screen Mode

Number of days out to show:

Stage Notes/Description:

Average Demand

Uncertainty of Demand

End Customer Service Level

View Demand Matrix

700  
✓

# Time Tracker

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7/25/2001 5:34 PM PowerChain Architect

Analysis Tools

Chain Properties

Chain Management

Messages **Expand** **Close**

Time Tracker

Horizon

1 Year

Base Time Unit

Days

Longest Path Through Chain

4 Days

Total Weighted Activity Time

1 Day

Total Weighted Traversal Time

3 Days

Cost Tracker **Expand**

Inventory Tracker **Expand**

Notes **Expand**

New Supply Chain (Version 1.0)  
You created this chain on 7/25/2001 2:43:35 PM

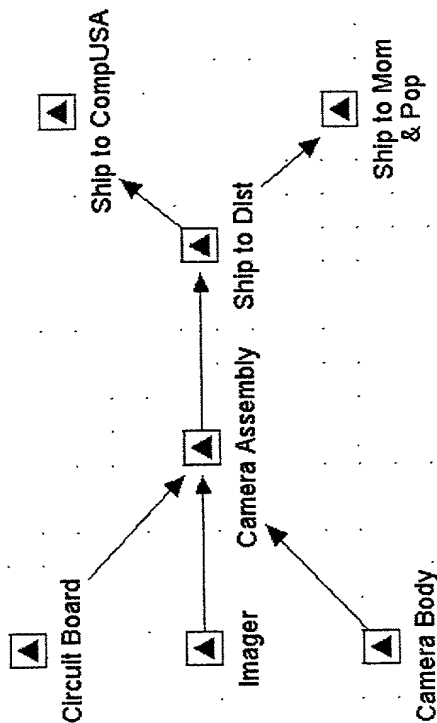
View Stage Data View Stage Data View Stage Data

150%

Grid

Snap To Grid

View Full Screen



Legend:   
☒ Safety Stock   
☒ Selected   
☐ On Clipboard   
☐ Ghost Stage   
☐ Bounded Time   
☐ Bounded Cost   
☒ Link Selected

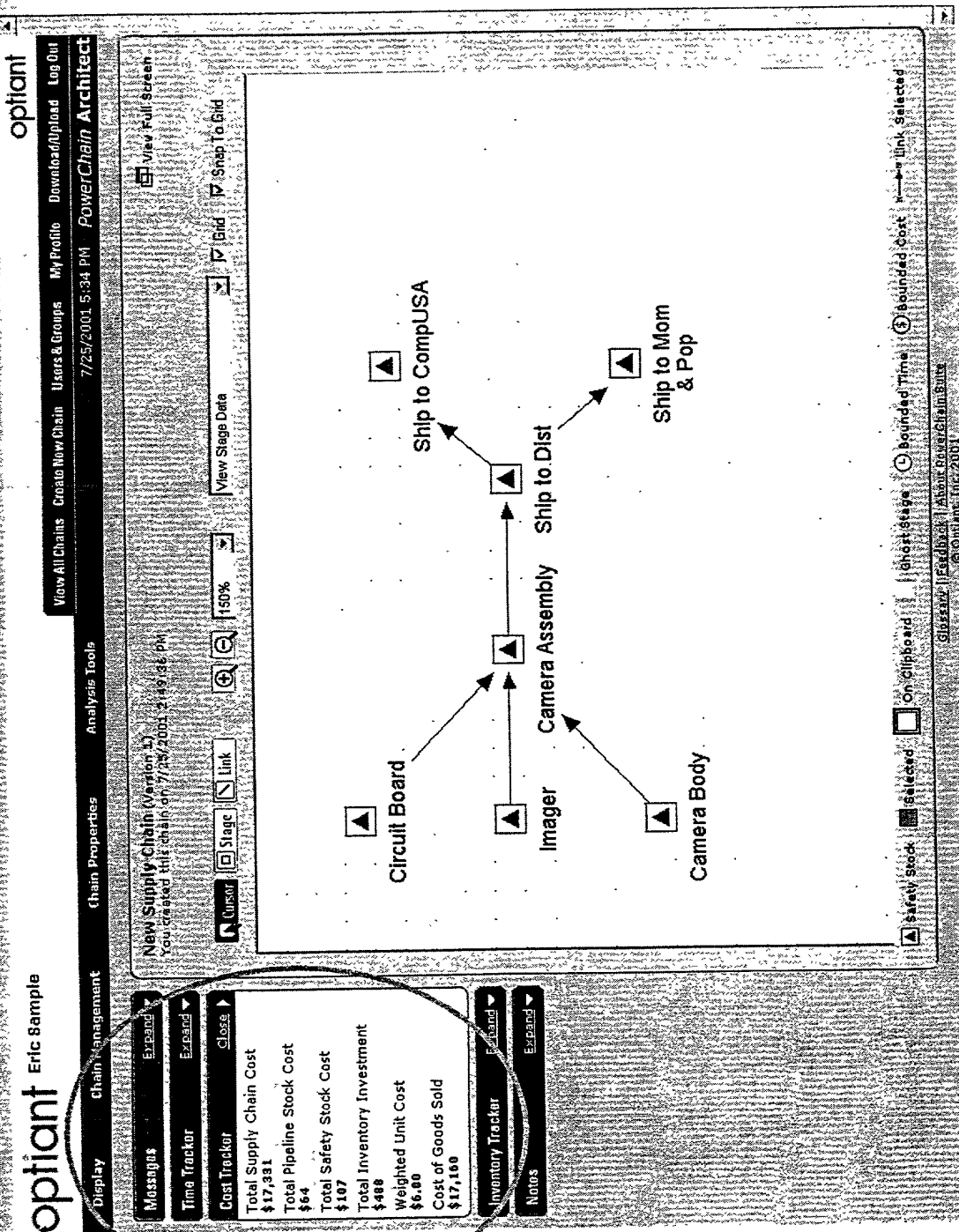
Glossary Feedback About PowerChain Suite

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Fig. 30

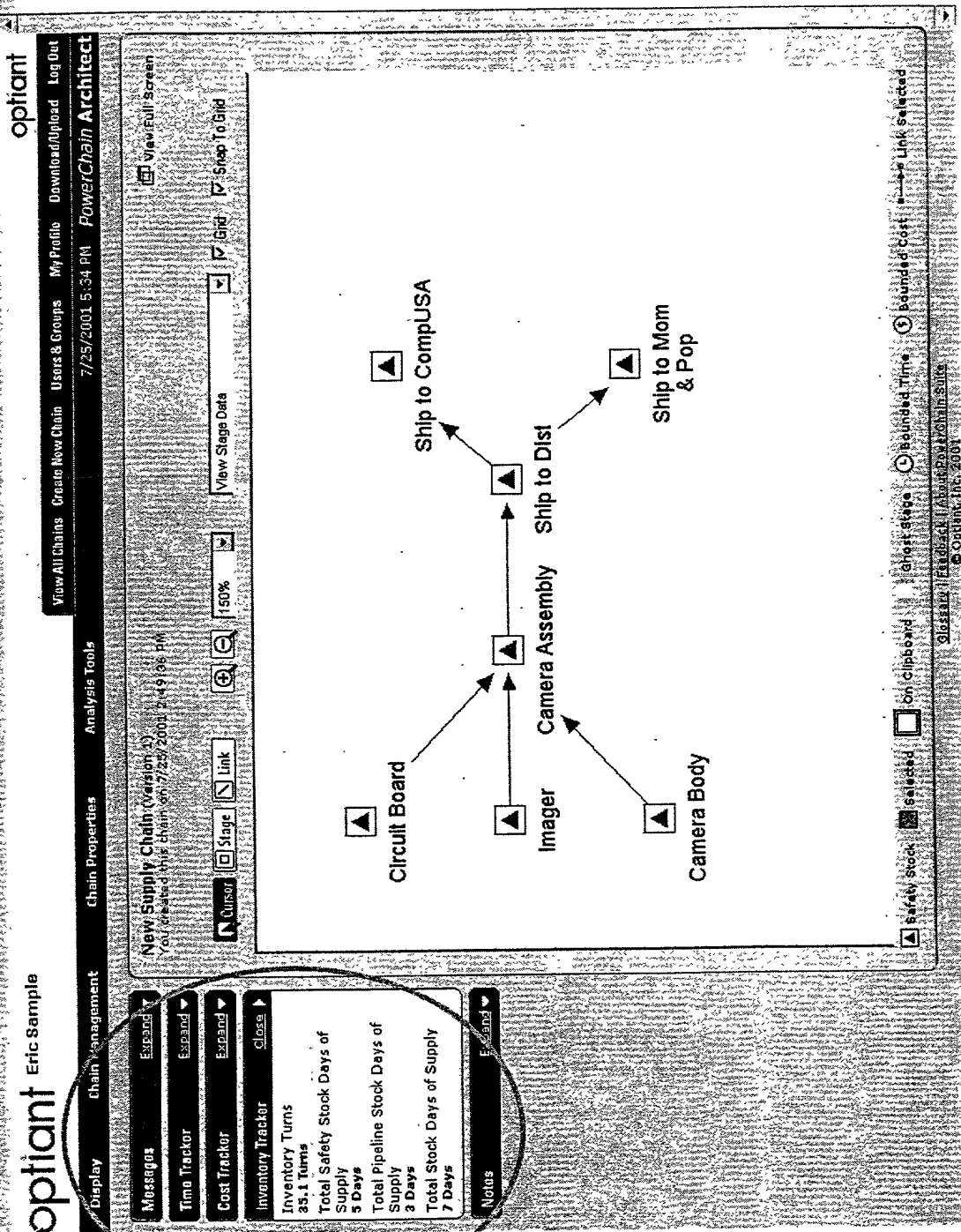
# Cost Tracker



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Fig. 31

# Inventory Tracker



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optiant  
Eric Sample

optiant

900  
↓

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6/26/2001 6:05 PM PowerChain Architect

### COMPARE CHAINS

Name	Total Safety Stock Cost	Total Pipeline Stock Cost	Total Stock Cost	Total Inventory Investment	Cost of goods sold	Total Supply Chain Cost	Weighted Unit Cost	Total Safety Stock Level	Total Inventory Turns	Total Cycle Time	Base Time Unit	Horizon Time Unit	Number of Stages
Copy of PowerChain Architect Case Study	\$164,005.14	\$594,601.68	\$758,606.82	\$2,427,674.61	\$17,872,712.00	\$18,631,318.82	\$3,617.96	410.87	7.36	120	day	year	17
PowerChain Architect Case Study	\$137,511.21	\$427,612.86	\$565,124.07	\$1,921,746.91	\$17,648,012.00	\$18,413,136.07	\$3,612.96	402.30	9.29	113	day	year	16

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3-905  
210  
915

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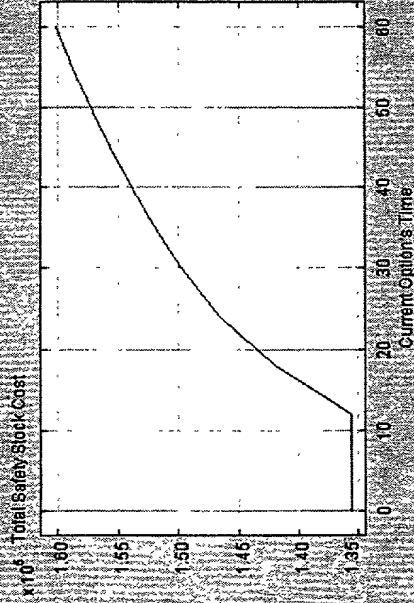
Fig. 33

# SENSITIVITY ANALYSIS

Messages **Expand**

Sensitivity Analysis: PowerChain Architect Case Study

Readme



- Click and drag the mouse "down" over a specific portion of the graph to zoom in.
- Click and drag the mouse "up" to zoom out of a specific portion of the graph.
- Click on the "Restore" button to restore the graph to its original presentation.

Current Option's Time	Total Safety Stock Cost
0.00	\$135,571.33
6.00	\$135,571.33
12.00	\$135,571.33
18.00	\$141,914.62
24.00	\$146,558.23
30.00	\$149,755.36
36.00	\$152,354.10
42.00	\$154,601.20
48.00	\$156,609.64
54.00	\$158,442.39
60.00	\$160,138.79

Handwritten note: 960

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1100

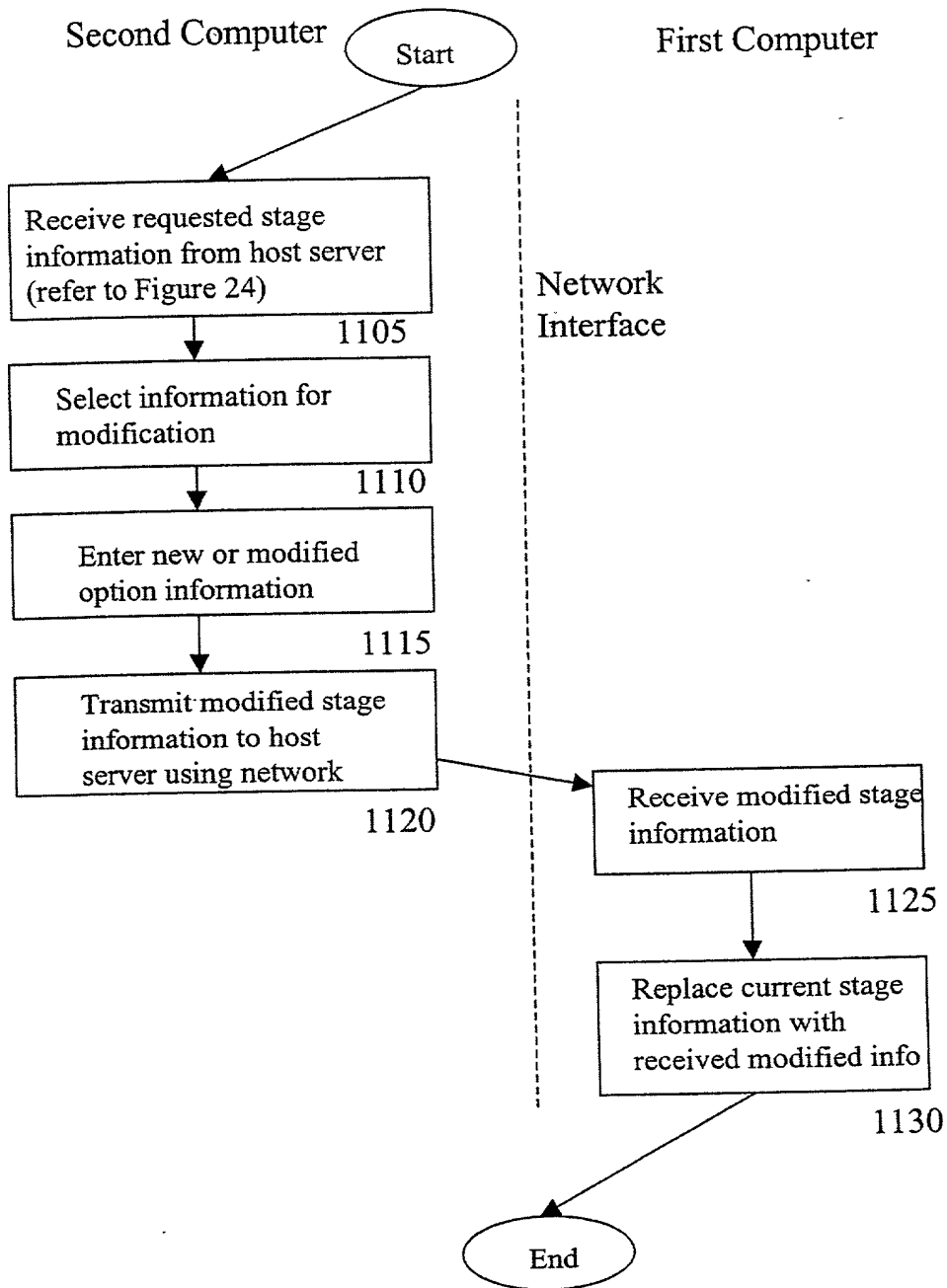


Fig. 35

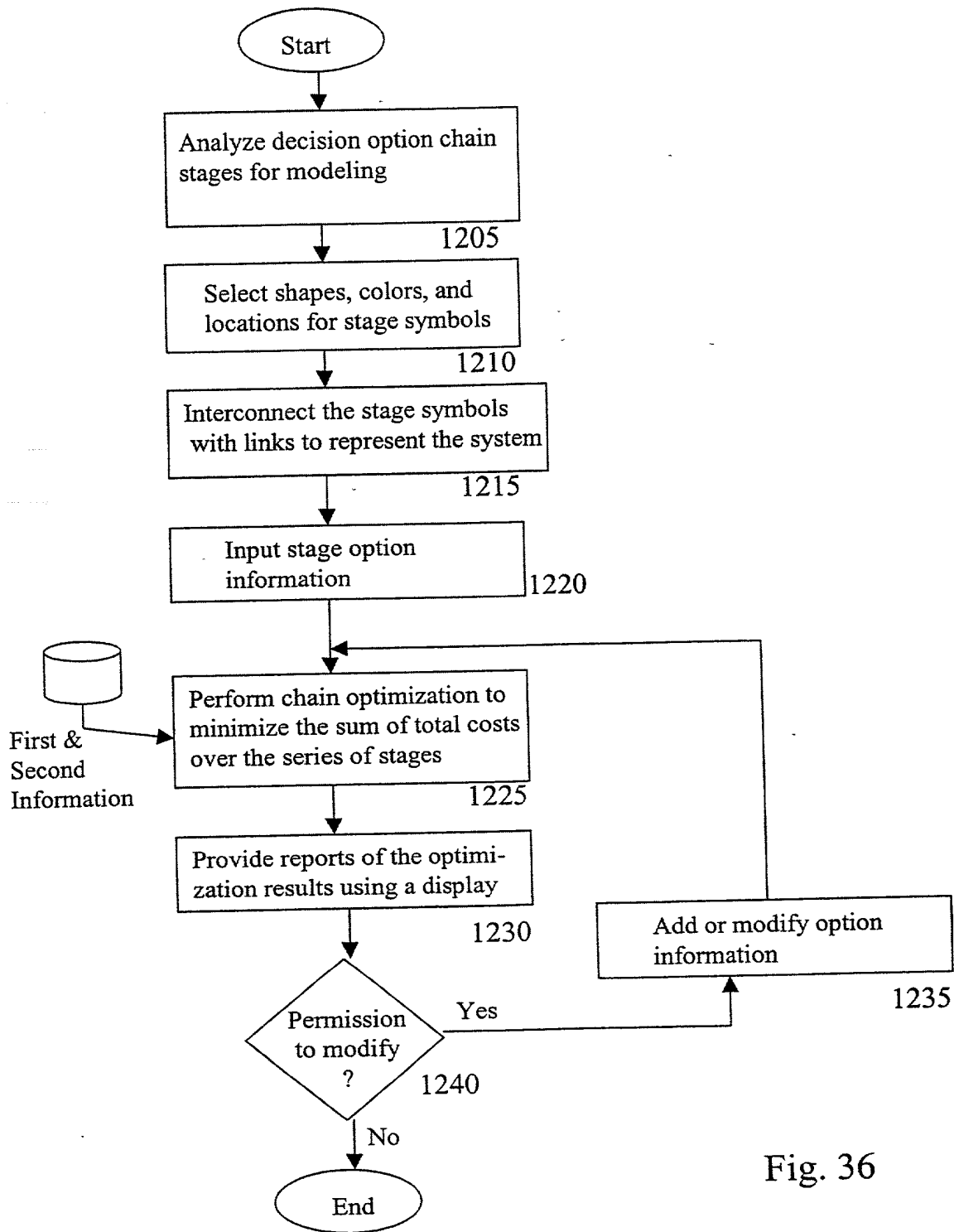


Fig. 36

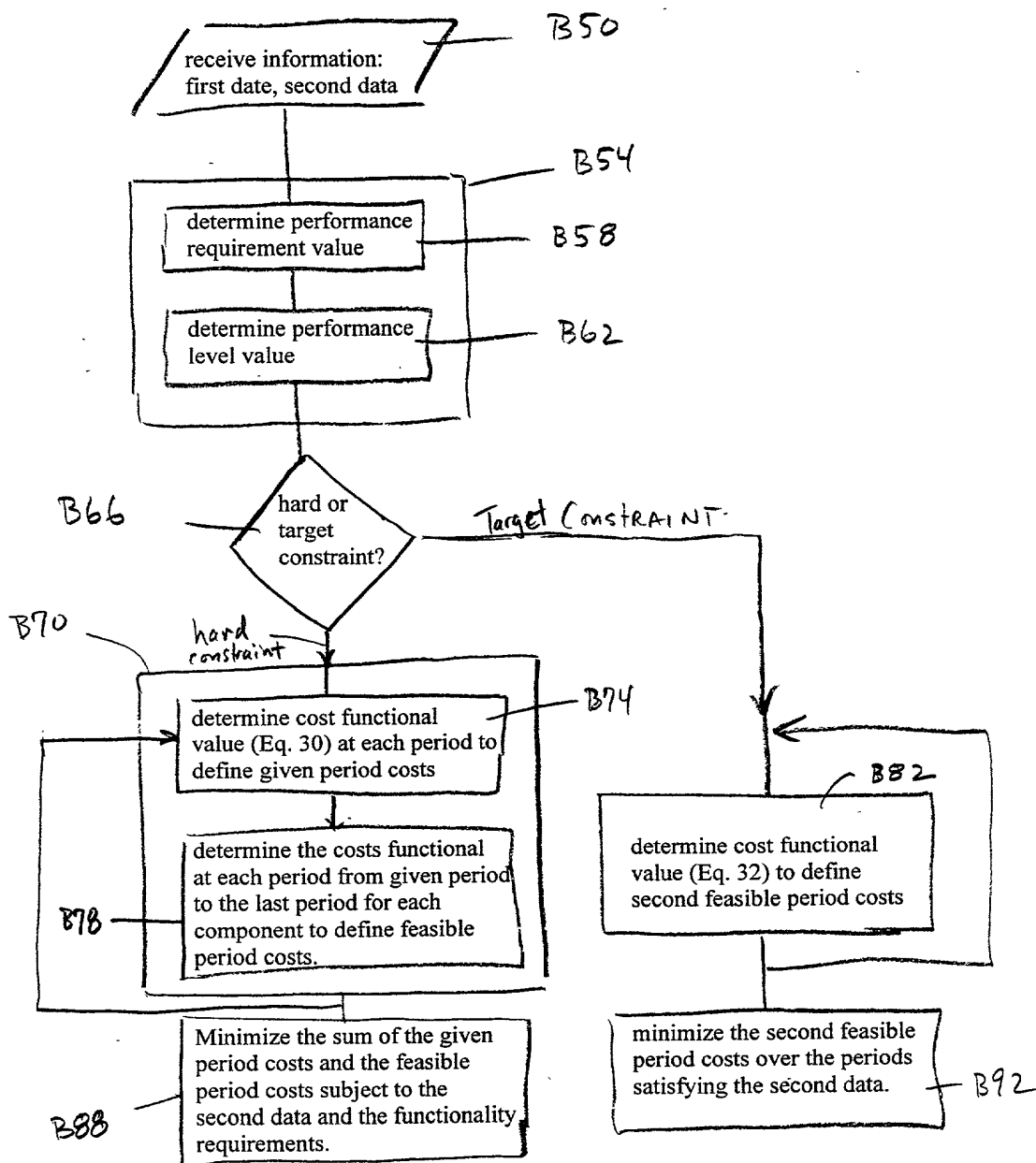
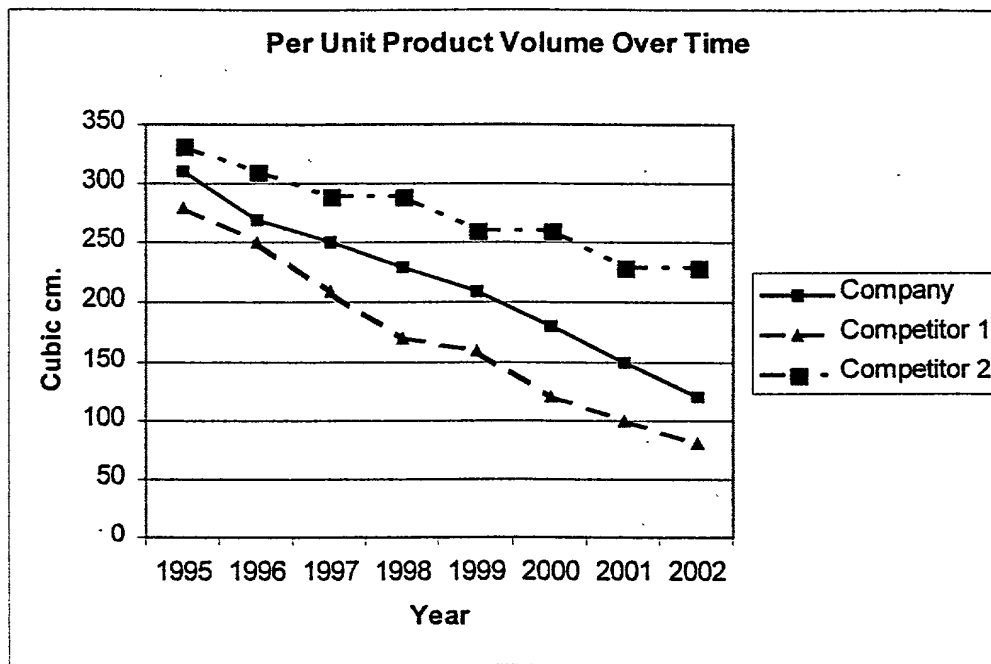
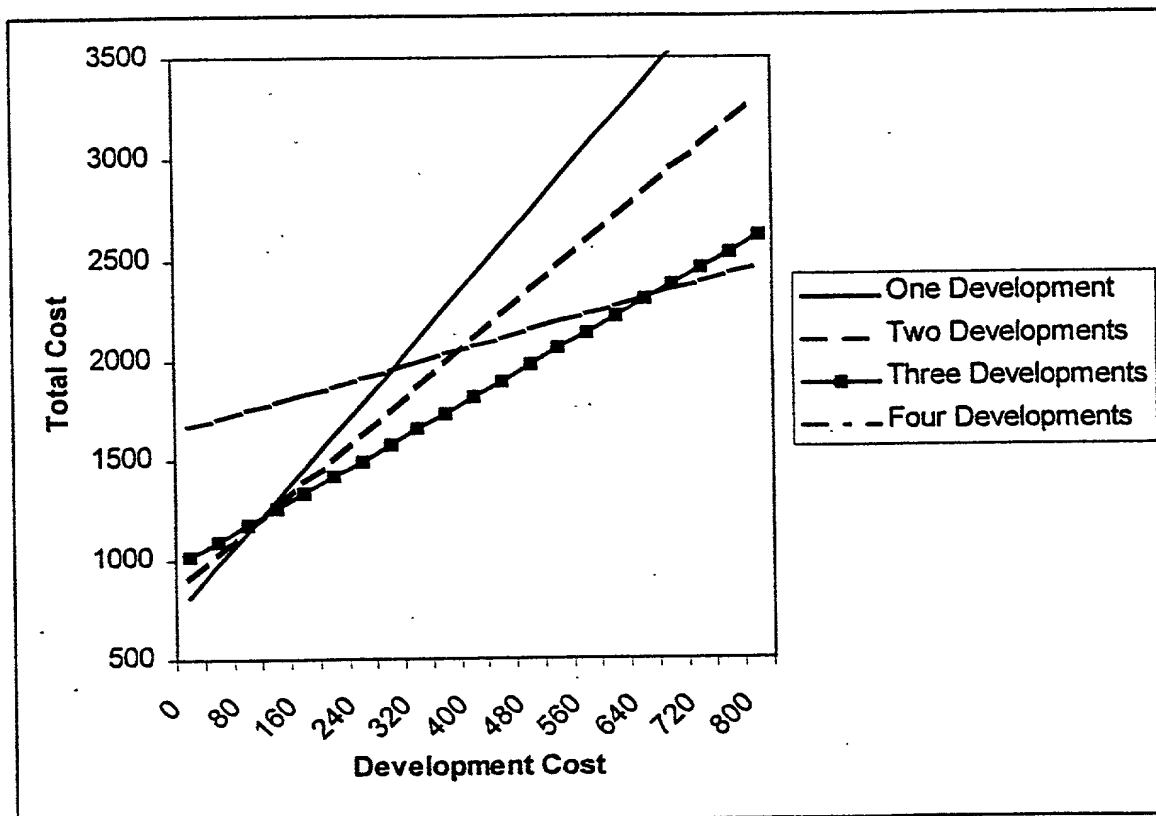


Figure 37



**Fig. 38** Chart showing product volumes over time



Graphical Depiction of Efficient Frontier

Fig. 39: